

**Notice of Allowability**

Application No.

09/996,113

Examiner

Qutub Ghulamali

Applicant(s)

CRANFORD ET AL.

Art Unit

2637

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/17/2005.
2. ☒ The allowed claim(s) is/are 19-21.
3. ☒ The drawings filed on 28 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgment***

1. This Office Action is responsive to the Amendment filed on 08/17/2005.
2. The Office hereby acknowledges the amendments submitted by the applicant(s) wherein claims 1-18 and 22-23 stand cancelled and claims 19-20 retained.
3. The examiner further acknowledges amendment to the specification, page 1, paragraphs 1 and 2, filed 08/17/2005, as acceptable.

### ***Allowable Subject Matter***

4. Claims 19-21 allowed.

### **Reasons for Allowance**

5. The following is an examiner's statement of reasons for allowance:

With reference to claim 19, the prior art made of record does not teach or explicitly show, a unified system of transmitting and receiving data comprising:

- a) phase locked loop control circuit having a digital coarse loop and an analog fine loop, the coarse loop including a reference generator, a voltage comparator, a PLL control logic, a digital to analog counter and a low pass filter;
- b) a two-stage voltage regulated ring oscillator controlled by the phase locked loop and capable of running at full bit frequency;

c) a frequency reference operating at one-fourth of full data rate;

d) a reference clock and a phase locked loop clock;

the fine loop control formed by a 4x frequency divider, a phase-frequency detector, a charge pump and a loop filter; and

the receiver comprising a phase locked loop including a voltage controlled oscillator, a phase rotator independent of the phase locked loop and adapted to receive the output phases of the oscillator, a phase rotator control state machine for controlling the phase setting of a phase rotator and employing an over sampled half-rate system using a digitized early-late control.

Such limitations, as recited in claims 1 and 3, are neither anticipated nor rendered obvious by the prior art made of record.

6. Claims 20 and 21 are allowed by virtue of their dependency to claim 20 highlighted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014.

The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG  
August 24, 2005.

A handwritten signature in black ink, appearing to read 'J. K. Patel', with a long horizontal stroke extending to the left.

**JAY K. PATEL**  
**SUPERVISORY PATENT EXAMINER**